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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,180

12/04/2006

Ronald Waters

UDL-130

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EXAMINER

SIMONE, CATHERINE A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,180	Applicant(s) WATERS ET AL.	
	Examiner Catherine Simone	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/7/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Vrooman (US 2,056,813).

Regarding claim 1, Vrooman discloses an insulating structure comprising a surface, at least a portion of the surface having a patterned texture (Figs. 1-3, surface 14).

Regarding claim 2, note the patterned texture is two-dimensional (Figs. 1-3).

Regarding claim 3, note the radius and circumference of the insulating structure is non-uniform along its length (Figs. 1-3 and claim 1).

Regarding claim 4, note the patterned texture is fluted (Figs. 1-3, flutes 14 and claim 2).

Regarding claim 5, note the insulating structure is elongated and longitudinally fluted (Figs. 1-3, flutes 14 and claim 2).

Regarding claim 6, note the flute depth varies at any point on the structure according to the radius and circumference of the structure (Figs. 1-3, flutes 14 and claims 1 and 2).

Regarding claim 7, note a perimeter length for all transverse sections of the insulating structure is substantially constant along the length of the structure (Fig. 1).

Regarding claim 8, note the fluting has a sinusoidal profile (Figs. 2 and 3).

3. Claims 1 and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Denndorfer (DE 101 12 689 A1) (English translation is provided herewith).

Regarding claim 1, Denndorfer discloses an insulating structure comprising a surface, at least a portion of the surface having a patterned texture (Figs. 3 and 4, surface structure 4; and Figs. 5 and 6, surface structures 23-25).

Regarding claim 9, note the patterned texture is three-dimensional (Figs. 3-6).

Regarding claim 10, note the insulating structure is formed with an array of protuberances (Fig. 6, protuberances between grooves 23-25).

Regarding claim 11, note the insulating structure is formed with an array of concavities (Fig. 6, grooves 23-25).

Regarding claim 12, note the patterned texture comprises geometrical sections of a spherical form (Fig. 5).

Regarding claim 13, note the form of the patterned texture is such that the surface area of the insulating structure is substantially constant along its length (Fig. 5).

Regarding claim 14, note the form of the pattern texture is such that the surface area of the insulating structure is controlled to produce a defined variation along its length (Figs. 1-3).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571) 272-1501. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Catherine Simone/
Examiner, Art Unit 1794

/JENNIFER MCNEIL/

Supervisory Patent Examiner, Art Unit 1794